

TITLE OF THE INVENTION

BIOCONJUGATES AND DELIVERY OF BIOACTIVE AGENTS

ABSTRACT OF THE DISCLOSURE

The present invention relates to bioconjugates and the delivery of bioactive agents which are preferably targeted for site-specific release in cells, tissues or organs. More particularly, this invention relates to bioconjugates which comprise a bioactive agent and an organocobalt complex. The bioactive agent is covalently bonded directly or indirectly to the cobalt atom of the organocobalt complex. The bioactive agent is released from the bioconjugate by the cleavage of the covalent bond between the bioactive agent and the cobalt atom in the organocobalt complex. The cleavage may occur as a result of normal displacement by cellular nucleophiles or enzymatic action, but is preferably caused to occur selectively as a predetermined release site by application of an external signal. The external signal may be light or photoexcitation, i.e. photolysis, or it may be ultrasound, i.e. sonolysis. Further, if the photolysis takes place in the presence of a magnetic field surrounding the release site, the release of the bioactive agent into surrounding healthy tissue is minimized.

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